

TWO-TIERED PASTRY BOX

FIELD OF THE INVENTION

[001] This invention relates generally to the field of cartons, and more particularly to a carton for use with pastries or other such items.

BACKGROUND OF THE INVENTION

[002] Pastries, including donuts, frequently are prepared with icing on top. When a person orders a dozen pastries, some of which have icing on them, the pastries cannot be stacked on one another without smearing the icing between several pastries. Therefore, a dozen pastries are traditionally packaged in a single layer in a box that is fastened with string. The advent of boxes with handles, such as are commonly seen used with donuts, permit a smaller footprint due to the ability to stack donuts on one another, so that a dozen donuts are stacked in two layers of six donuts per layer. When six or fewer of the donuts have icing on them, the iced donuts can be stacked in the top layer to prevent smearing of the icing between donuts. However, when a majority of the donuts or pastries have icing on them, they must be packaged in a single layer, necessitating the use of a box with a larger footprint and eliminating the convenience of using a box with a handle.

[003] In addition, more and more consumers want their baked products to be fresh and warm. Consequently, the toppings and/or coatings on the pastries are still hot and must be protected so that they do not rub off on other pastries or the carton.

[004] To accomplish this, the donuts or pastries must be placed flat in a carton rather than on end, and they cannot be stacked one on top of another. The traditional carton for packing a dozen pastries has been a carton that is long, wide, and shallow. This shape of box requires a lot of board, is cumbersome for store personnel to pack, and clumsy for the consumer to carry. Moreover, with the wide expanse of surface of the cover, care must be taken not to place anything on top of the filled box lest the cover be pushed into the icing on the pastry.

SUMMARY OF THE INVENTION

[005] The present invention comprises a pastry box which includes an internal pastry-supporting shelf portion formed from a blank that is separate from a one-piece box blank. The shelf includes flaps that provide support for the shelf when inserted into the folded box, thereby creating a box with two overlying compartments. The embodiment of the pastry box disclosed as the best mode presently known by the inventor for practicing the invention, when erected, has a two-sided roof with a pitched upper portion having mating handle cutouts that have locking tabs for securing the upper portion to upper side panel openings. However, the box lid can be formed in a traditional flat tuck-top configuration, if preferred. The pastry-supporting shelf is glued by a rear flap to the rear sidewall of the pastry box thereby providing a hinge for the shelf so that the pastry box may be more conveniently erected, and the shelf may be raised and lowered to provide access to the lowermost compartment.

[006] According to the disclosed embodiment of the invention, the two-tiered box for food items includes a box shell, the box shell having a width, length, and height; a shelf; the shelf including a shelf panel, a glue flap at one side of the shelf panel and a support flap at an opposite side of the shelf panel, wherein the planar dimensions of the shelf panel are substantially similar to the width and length of the box shell; the glue flap being integrally connected to the shelf panel via a dividing line formed as a cut and score line (although a perforation line or a fold line could be utilized); and the glue flap being affixed to an inside panel of the box shell such that when the glue flap is affixed to the inside panel of the box shell and the shelf panel is parallel to a bottom of the box shell, the dividing line, and thereby the shelf panel, is at a predetermined height relative to the height of the box shell.

[007] According to the embodiment of the invention, a two-piece blank of foldable material is cut to define first and second pieces; the first piece including (a) a first side panel integrally connected to a first end panel at one end via a first fold line and to a second end panel at another end via a second fold line; (b) a second side panel integrally connected to the second end panel at one end via a third fold line and to a first glue flap at

another end via a fourth fold line; (c) the first side panel integrally connected to a first side bottom flap via a fifth fold line; (d) the second side panel integrally connected to a second side bottom flap via a sixth fold line; (e) the first end panel integrally connected to a first end bottom flap via a seventh fold line; and (f) the second end panel integrally connected to a second end bottom flap via an eighth fold line; the second piece including a shelf panel integrally connected to a second glue flap via a cut and score dividing line and to a shelf flap via a fold line; and the first and second pieces are dimensioned such that when the first and second pieces are assembled into a box and the second glue flap is glued to an inside of the second side panel, one end of the perforation line of the second piece intersects a length of the first fold line and another end of the perforation line of the second piece intersects a length of the second fold line at the same relative height to position the shelf panel at a predetermined height relative to the blank bottom flaps.

BRIEF DESCRIPTION OF THE DRAWINGS

[008] Fig. 1 shows a blank for a first portion of a box formed in accordance with an embodiment of the invention;

Fig. 2 shows a blank for a second portion of the box formed in accordance with an embodiment of the invention;

Fig. 3 shows an erected box assembled in accordance with an embodiment of the invention having the cover open; and

Fig. 4 shows the erected box with the cover closed.

Fig. 5 is an alternative embodiment of the invention with a flat planer top.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[009] Referring now to Fig. 1, there is illustrated a blank 10 for erecting a box 5 (Figs. 3-4) assembled in accordance with an embodiment of the invention. A side panel 14 is connected on one side to an end panel 18 via a fold line 100 and to an end panel 20 on another side via a fold line 98. Side panel 14 is further connected to a side bottom flap 22 via a fold line 74 and to a side cover panel 30 via a fold line 72. Side cover panel 30

includes a handle portion 50 which is connected to side cover panel 30 via a fold line 70. Handle portion 50 includes an opening 46 cut therein to accommodate a person's fingers.

[010] In a similar fashion, a side panel 16 is connected on one side to end panel 20 via a fold line 96 and to a glue flap 54 on another side via a fold line 94. During construction of box 5, glue flap 54 is glued to a portion of end panel 18. Glue flap 54 preferably includes a perforation or crease which facilitates the glue bond. Side panel 16 is further connected to a side bottom flap 24 via a fold line 80 and to a side cover panel 32 via a fold line 78. Side cover panel 32 includes a handle portion 52 which is connected to side cover panel 32 via a fold line 76. Handle portion 52 includes an opening 48 cut therein which mirrors opening 46 in handle portion 50.

[011] End panel 18 is connected to an end cover panel 34 via a fold line 86 and to an end bottom flap 26 via a fold line 88. End cover panel 34 includes a teardrop-shaped hole 40. In similar fashion, end panel 20 is connected to an end cover panel 36 via a fold line 82 and to an end bottom flap 28 via a fold line 84. End cover panel 36 includes a teardrop-shaped hole 44. Box 5 is designed so that it lays flat along fold lines 96 and 100. Perforation lines 90, 92 in side bottom flaps 22, 24, respectively, permit side bottom flaps 22, 24 to bend to accommodate the flattening of box 5. During assembly, flattened box 5 is opened to a rectangular shape along fold lines 96 and 100, handle portions 50 and 52 are brought together, and tabs 38 fit into hole 40 while tabs 42 fit into hole 44. The openings 46, 48 in handle portions 50, 52 are thereby positioned adjacent one another to facilitate carrying the erected box 5, as best illustrated in Fig. 4.

[012] Referring to Fig. 2, a blank 12 includes a shelf panel 56 for a shelf to be glued into box 5. Shelf panel 56 preferably is connected to a glue flap 64 via a cut and score line 102, to reinforcing flaps 60, 62 via cut-score lines 104, 108 respectively, and to a support flap 58 via a cut-score line 106. Shelf panel 56 preferably includes a hole 66 to assist in raising and lowering the shelf inside box 5.

[013] During construction of box 5, glue flap 64 is glued against the inside of side panel 16 so that dividing line 102 divides the vertical distance of side panel 16, i.e., the distance

of fold lines 94, 96, 98, and 100, into two substantially equal portions. However, as previously discussed, the glue flap 64 and the support flap 58 may be sized to position the height of the shelf panel 56 at any position desired to divide the two compartments into the size desired relative to the vertical dimension of the side and end panels of the box 5. Box 5 retains the ability to be flattened with shelf panel 56 installed. When box 5 is assembled, the glue flap 64 is glued to the sidewall 16 and the shelf panel 56 is folded outwardly along perforation line 102. Reinforcing flap 60 is preferably folded about cut-score line 104 and glued to the underside of the shelf panel 56. However, reinforcing flap 60 does not have to be glued, but may be folded downwardly about cut-score line 104 in the same manner as reinforcing flap 62 is folded downwardly about cut-score line 108 so that one (62) or both (62,64) reinforcing flaps are directed towards the bottom of box 5. Support flap 58 is likewise folded outwardly along cut-score line 106 and directed towards the bottom of box 5. Support flap 58 is preferably dimensioned such that when folded downwardly an edge 110 rests against the bottom of box 5 substantially along fold line 74.

[014] Fig. 3 shows box 5 erected with shelf panel 56 in place, and with side cover panels 30, 32 open.

[015] Fig. 4 shows a fully erected box 5. Box 5 is preferably half of the length and twice the depth of a conventional flat box. The carton design of the present invention includes a horizontal partition or shelf that covers and protects the first layer of donuts or pastries, while supporting a second layer, and adding strength and integrity to the carton as a whole. Further, the carton is designed so that loading of product by store personnel and unloading of the product by the consumer is intuitive, i.e., the ease of lowering shelf and its supporting flaps. The box has a built-in handle for carrying, while the shelf has a handle die cut into it so that in the upright position, it reinforces the handle to facilitate packing of the pastries by store personnel.

[016] While the present invention has been described with reference to a particular embodiment and the accompanying drawings, it will be understood by those skilled in the art that the invention is not limited to the embodiment illustrated and that various

modifications and the like could be made thereto without departing from the scope of the invention as defined in the following claims.